

Update instructions

1. Firmware update

Follow the instructions under 2LabsToGo-Eco-Firmware/ReadMe

2. Software update

2.1. Full update (concerned many files)

The following instructions assume that the folder 2LabsToGo-Eco is located in the home directory.

- In the software, Disconnect the board ("Connection" tab in browser) and close all tabs.
- Stop the server with "Ctrl+c" in the running terminal.
- Rename the folder 2LabsToGo-Eco-Software to 2LabsToGo-Eco-Software-old; thus, all captured plate images and exported csv files are still available here. Use the file manager or the following terminal command

```
sudo mv ~/2LabsToGo-Eco/2LabsToGo-Eco-Software ~/2LabsToGo-Eco/2LabsToGo-Eco-Software-old
```

- In a linux terminal, change to the Downloads directory

```
cd Downloads
```
- Clone the new 2LabsToGo-Eco package with

```
git clone https://github.com/OfficeChromatography/2LabsToGo-Eco.git
```
- Then move the downloaded 2LabsToGo-Eco-Software folder to the 2LabsToGo-Eco folder

```
cd 2LabsToGo-Eco
```

```
sudo mv 2LabsToGo-Eco-Software ~/2LabsToGo-Eco/2LabsToGo-Eco-Software
```

[Thus, a former defined alias still works.]

- Copy your old database to the new software folder

```
sudo cp ~/2LabsToGo-Eco/2LabsToGo-Eco-Software-old/app/db.sqlite3  
~/2LabsToGo-Eco/2LabsToGo-Eco-Software/app
```
- From the old software, copy the data INIT_POINT_X and INIT_POINT_Y, the vial positions, and photo position to the new software.

1. X, Y points and vial positions

To correct INIT_POINT_X and INIT_POINT_Y and the vial positions, open the file
2LabsToGo-Software/app/finecontrol/gcode/GcodeGenerator.py
with Geany, overwrite the below marked values by the values of the old software
2LabsToGo-Software-old/app/finecontrol/gcode/GcodeGenerator.py
and save the file.

```
import time  
from datetime import datetime
```

```
INIT_POINT_X = 20  
INIT_POINT_Y = 3.5
```

```
class GcodeGenerator:  
    # set these values according to each machine!!!
```

```
    pos_common= "G0Z"  
    vial_9= "145" #rinse bottle  
    vial_8= "267.5" #vial 8  
    vial_7= "253.5" #vial 7  
    vial_6= "239.5" #vial 6  
    vial_5= "225.5" #vial 5  
    vial_4= "211.5" #vial 4  
    vial_3= "197.5" #vial 3
```

```
vial_2= "183.5" #vial 2
vial_1= "169.5" #vial 1
rin_bot= "145" #rinse bottle
```

2. Photo position

To correct the photo position, open the file

2LabsToGo-Software/app/templates/js/oclab/detection.js

with Geany and overwrite the below marked value by the value of the old file

2LabsToGo-Software-old/app/templates/js/oclab/detection.js

and save the file.

```
//put camera into position
$($('#camerapobtn').on('click', function (e) {
  e.preventDefault()
  gcode = 'M92Z400'
  sendToMachine(gcode)
  gcode = 'M203Z40'
  sendToMachine(gcode)
  gcode = 'M42P49S0'
  sendToMachine(gcode)
  gcode = 'M42P36S0'
  sendToMachine(gcode)
  sendToMachine('M355 S0 P255')
  gcode = 'G1X90\nG28YZ\nG1Y158Z270F3000' //Y value depends on each system
  sendToMachine(gcode)
  gcode = 'M355S1P50'; //case light on
  sendToMachine(gcode);
  gcode = 'M355S0P50'; //case light off
  sendToMachine(gcode);
})
```

Start the software

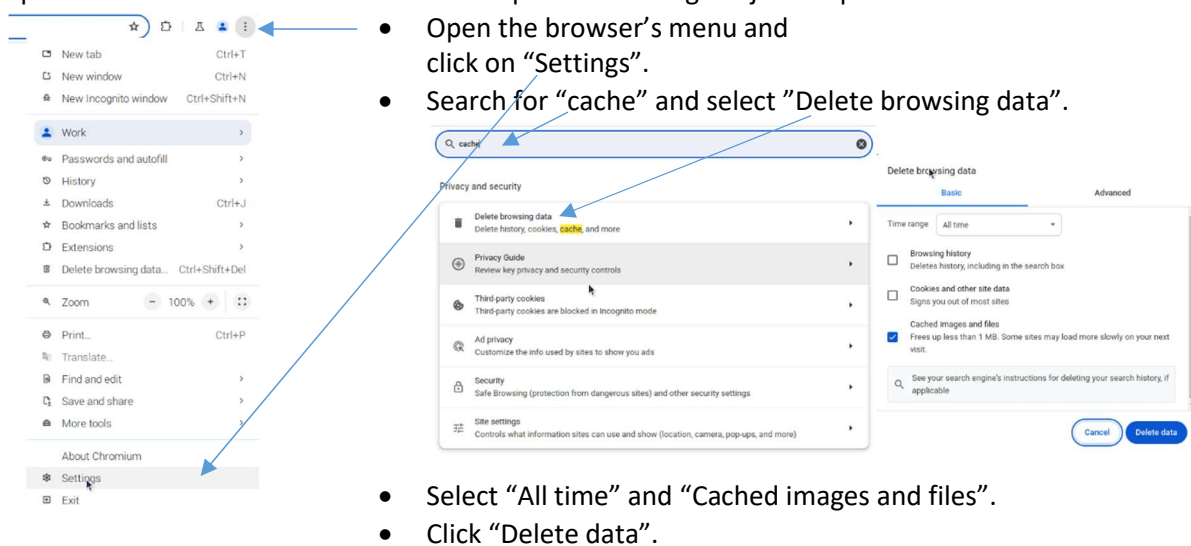
Open a new terminal and change to the software directory

```
cd ~/2LabsToGo-Eco/2LabsToG-Eco-Software
```

followed by

```
python3 run.py (or use the defined alias)
```

Open the browser and delete the cache to prevent loading old javascripts:

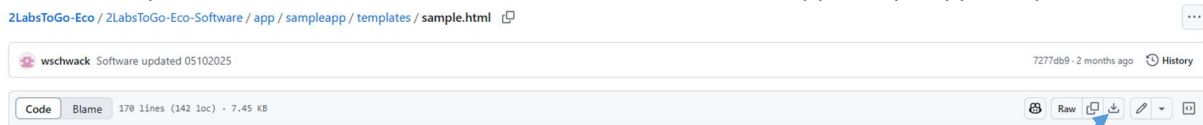


- Open the browser's menu and click on "Settings".
- Search for "cache" and select "Delete browsing data".
- Select "All time" and "Cached images and files".
- Click "Delete data".

In a new browser tab, open the software (address: 127.0.0.1:8000).

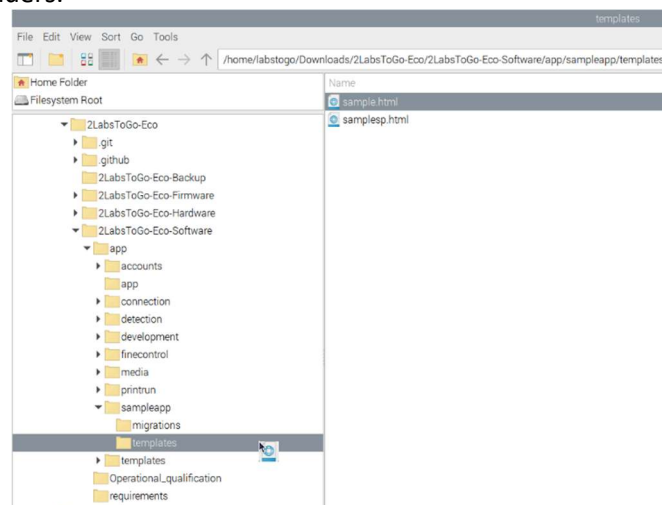
2.2. Partial update (concerned a few files)

- In the GitHub repository, navigate to the respective files, here exemplarily shown for sample.html in 2LabsToGo-Eco/2LabsToGo-Eco-Software/app/sampleapp/templates/



and click the download button.

- After downloading all files, go to the installation folder on the Raspberry Pi file manager and rename the respective files by adding “.old”, for example, “sample.html.old”. In case of problems, it is possible to return to the old files.
- Using the mouse (left click), move the downloaded files, file by file, to the respective installation folders:



- In case, the files “GcodeGenerator.py” and “detection.js” were updated, follow the above instruction to copy the data INIT_POINT_X and INIT_POINT_Y, the vial positions, and photo position from the old files to the updated files.
- Open the browser and delete the cache to prevent loading old javascripts (see above under 2.1).